

Scoping Meeting Worksheet

Geoindicator Table

Big Bend National Park

Geologic (ecological) importance, degree of human influence, and management significance of selected geoindicators

Geoindicators Identified in the Ecosystem	How important is the process to the park's ecosystem?	Rank the human impact on the geologic process	Significance to park management
ARID AND SEMIARID			
1. Desert surface crusts and pavement (physical & biotic)	H	H	H
2. Dune formation and reactivation	L	L	L
3. Dust storm magnitude, duration and frequency	M?	H	M
4. Wind erosion	L	L	L
GROUNDWATER			
5. Groundwater quality	H	L	H
6. Groundwater level	H	H (local*)	H
7. Geothermal Springs	H	H (local*)	H
8. Karst activity	M	L?	M
SURFACE WATER			
9. Stream channel morphology	H	H	H
10. Stream sediment storage and load	H	H	H
11. Streamflow	H	H	H
12. Surface water quality	H	H	H
13. Wetlands extent, structure, hydrology	H	H	H
SOILS			
14. Soil quality	H	H	H
15. Soil and sediment erosion	H	H	H
16. Sediment sequence and composition	unknown	Unknown	unknown
HAZARDS			
17. Slope failure (landslides)	L	L	L
18. Seismicity	L	n/a	L
19. Swelling Clays	L	H (locally*)	H
20. Volcanic unrest	n/a	n/a	n/a

H – HIGHLY influenced by, or with important utility for
M – MODERATELY influenced by, or has some utility for
L – LOW or no substantial influence on, or utility for

* Local: the indicator ranking applies to specific park localities: not parkwide